ARTICLE XII

WIRELESS TELECOMMUNICATIONS FACILITY BYLAW

12.01 Definitions:

- A. AGL: Above ground level.
- B. Antenna: A electronic equipment the surface from which wireless radio signals are sent and received by a wireless telecommunications facility.
- C. Collocation: The placement of antennas by more than one FCC licensed carrier on a tower or other structure from which to transmit or receive radio signal.
- D. FCC licensed carrier: A company licensed and regulated by the Federal Communications Commission that provides wireless telecommunications services. For the purposes of this bylaw, a FCC licensed carrier is not a public utility.
- E. Ground Equipment: Equipment shelters, radio cabinets, power and telephone cabinets, backup emergency power and other associated equipment (not including Towers) located on the ground.
- F. Major Wireless Telecommunications Facility: A tower, antennas, cables, radio, electronic and associated equipment used by FCC licensed carriers for the purposes of transmitting and receiving voice and data via radio waves.
- G. Minor Wireless Telecommunications Facility: Antennas, cables, radio, electronic and associated equipment mounted wholly within existing structures and used by FCC licensed carriers for the purposes of transmitting and receiving voice and data via radio waves. Minor Wireless Telecommunications Facilities require no new tower to be constructed.
- H. Monopole: Vertical single pole structure capable of holding antennas either within its interior or on its exterior.

12.02 Use.

- A. Major Wireless Telecommunications Facilities shall be allowed by Special Permit pursuant to Article V and subject to Site Plan Review pursuant to Article IX in those areas within the Town of Topsfield that fall outside the circle of a certain geographic area that has a radius equal to 8,000 feet and with a center at the intersection of the south and east boundaries of Pemberton Lane.
- B. Minor Wireless Telecommunications Facilities shall be allowed by Special Permit pursuant to Article V and subject to Site Plan Review pursuant to Article IX throughout the Town of Topsfield.

12.03 Purpose and Intent.

To preserve the visual landscape of the community, and preserve and protect the interests and the inhabitants of the Town of Topsfield. To that end, collocation of antennas and equipment associated with wireless telecommunications shall be encouraged on existing lawful structures and the construction of new towers is discouraged.

12.04 Major Wireless Telecommunications Facilities (Major WTF).

A. Design Criteria:

- All Major WTFs shall be sited, screened and finished to blend in with the surroundings in such a manner that aesthetically minimizes the visibility and adverse impact of the Major WTF with the surrounding landscape. Existing on-site vegetation shall be preserved to the maximum extent possible.
- Major WTFs shall in all cases be a monopole design. No lattice towers will be allowed.
 Monopoles shall be "steath" in that they shall have antennas that are either interior
 mounted or exterior flush mounted, with strong preference given for "tree" monopoles.

- 3. Major WTFs shall be no higher than 100 feet AGL; if however, the applicant has, including itself if the applicant is a FCC licensed carrier, two or more FCC licensed carriers who are coapplicants, or who have expressed written interest in collocating on the proposed Major WTF, then the facility shall be no higher than 120 AGL.
- 4. No Major WTF shall be lighted unless required by the FAA.
- 5. All Major WTF shall be designed and built to accommodate the maximum number of users technologically practical.
- 6. A Major WTF shall not be erected nearer to any property line than a distance equal to the vertical height of the Major WTF (inclusive of any appurtenant devices)
- 7. All network interconnections to the Major WTF shall be by land lines.
- 8. The tower and all ground equipment associated with the Major WTF shall be surrounded by an 8 foot high security fence and kept locked at all times. If the fence and ground equipment are visible from a public way, the fence shall be constructed of wood and shall be painted or surrounded by plantings to help the facility blend in with the surroundings.
- 9. There shall be one generator per Major WTF for backup emergency power. Such generator shall be fueled by liquid propane and not by diesel fuel.
- 10. There shall be no signage posted at a Major WTF except those required by the FCC or as otherwise required by law.
- 11. Access roads leading to any Major WTF shall be constructed of improved gravel or grass paving blocks.

B. Special Submittal/Other Requirements:

- New Major WTFs shall be considered by the ZBA only upon a finding by the ZBA that
 there is no existing structure that can be used as a Minor WTF or that there is no existing
 or approved Major WTFs that is available, that can physically accommodate and/or that
 can provide sufficient radio signal to the area sought to be covered by the proposed
 Major WTF.
- 2. A balloon of the color and size customary in the industry shall be flown for four hours each on two successive Saturdays as further directed by ZBA to simulate the height at which the Major WTF is proposed. Visual computer simulations of how the Major MTF will look from 360 degree views from all prominent vantage points shall be presented at the public hearing.
- 3. A removal bond shall be posted by the applicant in an amount sufficient to cover all costs of removal of the Major WTF. A Major WTF that has no FCC licensed carriers transmitting/receiving from the Major WTF for a period of one year, shall be dismantled.
- C. Lawfully Existing Major Wireless Telecommunications Facilities:
 - 1. A lawfully existing Major WTF may be replaced, but such replacement facility shall by a Special Permit and shall not be any greater in height nor substantially greater in mass than the existing Major WTF.
 - 2. Lawfully existing Major WTF may be permitted by a Special Permit a onetime increase in height of twenty feet if the applicant sufficiently demonstrates that the height increase will prevent the need for additional

Major WTFs from being built and that the need for the height increase is required by a carrier.

- 3. Collocation on an existing Major WTF shall be by Special Permit.
- 4. Wireless Communication Facilities lawfully in existence prior to the enactment of this By-Law may be altered, changed, extended or rebuilt subject to a Special Permit by the Zoning Board of Appeals, provided any alteration, change, extension or reconstruction subject to Section 12.0 of this By-Law.
- 12.05. Minor Wireless Telecommunications Facilities (Minor WTF).
 - 1. Minor WTFs shall be preferred over new Major WTFs.
 - 2. All equipment associated with the Minor WTF shall be either camouflaged from view from the public way.
 - 3. Subject to the height requirements and exceptions in the Zoning Bylaw, the height of an existing structure used as a Minor WCF may be increased in height by 25' to accommodate said Minor WTF. (Art. 35, 5-1-2001)